RFCA Stakeholder Focus Group
November 8, 2000
REVISED Meeting Minutes

INTRODUCTION AND ADMINISTRATIVE

Reed Hodgin began the meeting explaining that the meeting room would again be arranged as an open square table to foster better communication among the participants. Those who wished to join the conversation were asked to sit around the table; those who attended the meeting to answer technical questions or to observe were seated behind and around the square.

A participants list for the November 8, 2000 RFCA Stakeholder Focus Group meeting is included in this report as Appendix A.

Reed reviewed the Focus Group purpose.

The October 11, 2000 RFCA Stakeholder Focus Group meeting minutes were reviewed and approved.

Reed presented the schedule of Focus Group meetings to address the Radioactive Soil Action Level (RSAL) Review (Appendix B). The RSAL review will dominate the agendas for the Focus Group through mid-May, 2001.

Reed reviewed the agenda for this meeting. Mary Harlow, City of Westminster, asked for time to make a presentation of the proposed Rocky Flats Cleanup Agreement (RFCA) project peer review process that she had developed at the request of the Focus Group. The Focus Group agreed.

RFCA PROJECT PEER REVIEW PROCESS

Mary Harlow, City of Westminster, presented a proposed peer review process for the RFCA regulators' review of the interim RSALs for Rocky Flats (Appendix C). The draft process had been developed with the assistance and concurrence of several other Focus Group members.

Mary proposed that the peer review panel review five technical documents to be prepared by the regulators:

1/14

- Regulatory Analysis,
- Model Evaluation,
- Parameter Evaluation,
- New Scientific Information, and
- Draft RSAL Document.

She presented a draft review process, in which the peer reviewers and the RFCA Focus Group would receive draft documents in parallel for review. The review period would be 30 days for most documents. The peer review panel would submit written comments to the regulators, which would respond in writing. The comments and responses would be discussed at subsequent RFCA Focus Group meetings.

Mary proposed that an honorarium be provided to each peer reviewer, with half of the remuneration at the beginning of the review and half at the end. She also proposed that penalties be assessed for missed deadlines, and that incidental expenses be paid as additional direct costs.

Five criteria were suggested for selecting the peer reviewers:

- Positive reputation and credibility in the scientific community,
- Competence in the specific task areas,
- Minimal conflict of interest,
- Ability to meet the required schedule,
- Willingness to share all correspondence with the Focus Group.

Mary recommended that five scientists who conducted a review of the Risk Assessment Corporation review of RSALs be considered as candidates. Mary will send resumes for these scientists to any interested Focus Group members.

Mary suggested as a next step that the draft review process be designed in detail and that contracts be issued through the Rocky Flats Citizens Advisory Board. Mary asked that if anyone was interested or knows of anyone interested in participating in the peer review process, to give the name and contact information to Christine Bennett of AlphaTRAC, Inc.

A group discussion followed Mary's presentation.

John Marler (RFCLOG) indicated that the peer review might be more useful during the analysis of As Low As Reasonably Achievable (ALARA) provisions, since there would be more latitude for choices in this area as opposed to the requirements analysis.

It was suggested that, in addition to the technical reviewers, a technical advisor might be needed for the Focus Group. This advisor would attend Focus Group meetings and act as an independent source of information about the RSAL review.

The Focus Group agreed that a peer review process should be put into place. Mary asked that a working group be put together to draft a peer review scope of work and submit names of scientists who may want to join the panel. The following Focus Group members volunteered to prepare the detailed plan:

- Tim Rehder
- John Marler
- Ken Korkia
- Mary Harlow
- Tom Marshall
- **Victor Holm**
- Shirley Garcia
- Carol Lyons
- LeRoy Moore
- Jeremy Karpatkin

Jeremy Karpatkin indicated that the schedule for the peer review process may necessitate extending the overall schedule for the RSAL review. Joe Legare stated that the U. S. Department of Energy (DOE) would provide funding for the peer review.

RSALS REGULATORY FRAMEWORK

Tim Rehder, EPA, presented a draft analysis of the regulatory framework for the RSALs (Appendix D). His presentation included six topics:

- Draft EPA Rule,
- Rationale Behind Current RSAL,
- Change in Regulatory Landscape,
- Land Use and Institutional Controls,

- ALARA, and
- Options.

Tim summarized the draft EPA rule (since withdrawn) on which the interim RSAL were based:

- Sites to be cleaned up so that dose to public <= 15 mRem/yr
- If institutional controls play a part in the remedy, then residual contamination must be reduced so that dose to public is <= 85 mRem/yr in the event of control failure.

Tim then discussed the rationale behind the interim RSAL now in place. Anticipated future land use scenarios were developed (an office worker in a commercial reuse setting and an open space user). An unanticipated future land user was also hypothesized (suburban resident). Doses from contaminated soil were modeled using the RESRAD dispersion model to project soil contamination levels that would produce the limiting doses. The results were summarized as:

- 15 mRem Dose to Anticipated Future User
  - Office Worker (562 pCi/g)
  - Open Space User (4,145 pCi/g)
- 85 mRem to the Unanticipated Future User
  - Suburban Resident (651 pCi/g)

Tim indicated that there had been three major changes in the regulatory framework since the interim RSAL was instituted. The EPA rule was withdrawn. The U. S. Nuclear Regulatory Commission (NRC) promulgated a relevant rule:

- Clean sites so dose to public is <= 25 mRem/yr (plus ALARA)
- Residual contamination reduced so dose to public <= 100/500 mRem/yr in the event of Institutional Control failure. Residual Contamination is ALARA

The U. S. Environmental Protection Agency (EPA) provided guidance:

- Dose limits in the NRC Rule may not be protective.
- CERCLA Risk Range of 10-4 to 10-6 should be used for developing action levels.

- If a dose limit is used to develop action level, it should generally be 15 mRem/yr.
- Cleanups must protect human health and the environment and must comply with ARARs

Tim then discussed land use and institutional controls. He presented three perspectives - institutional controls as envisioned within RFCA, the EPA policy, and the Perspective in the NRC rule:

- RFCA envisioned Institutional Controls to assure the anticipated land user (reuse worker, and open space user).
- EPA Policy: cleanup levels consistent with reasonably anticipated future land use (with an emphasis on "reasonably anticipated").
- NRC Rule prefers unrestricted use, but allows for restricted release in conjunction with institutional controls.

Next discussed was the concept of ALARA, brought into the picture through the NRC rule. Tim made four points with regard to ALARA:

- Historically the concept has been applied to worker safety.
- NRC has draft guidance for how ALARA should be used in cleanup applications.
- Some precedent at other sites.
- RFCA Vision states "where possible the site will be cleaned to maximum extent feasible".

Tim stated that applying the ALARA principle to cleanup sites is a relatively new concept in regulatory practice. One approach has been to apply a dollar value to each unit of dose averted.

Tim stated that the RFCA parties had identified four draft options for an RSAL regulatory framework at Rocky Flats:

1. 25 mRem to anticipated future user/100 mRem to unanticipated future user
2. Single value in risk range for anticipated future user compared to 25 mRem to anticipated future user
3. 25 mRem to unanticipated future user
4. 15 mRem to anticipated future user.

Option 1 is based on the approach used in the draft EPA rule that formed the basis for the interim RSAL.

In option 2, a single value would be chosen from the CERCLA risk range. An RSAL would be determined that was equivalent to this risk level. The more restrictive of RSALs based on the risk value or 25 mRem to the anticipated future user would be adopted.

Option 3 develops an RSAL based on a 25 mRem dose to an unanticipated future user (the suburban resident), while Option 4 is based on a 15 mRem dose to an anticipated future user (the open space user).

UNDERSTANDING THE RSALS REGULATORY FRAMEWORK - GROUP DISCUSSION

Reed asked the RFCA Parties to define desired outcomes from the group discussion on the RSALS regulatory framework. Each agency responded:

DOE:

- Feedback on specific elements of the regulatory analysis
- Points of clarification
- Are we on track? Did we bring the discussion home?
- Were there key areas that you're aware of that we failed to address?
- Next draft is 1/3/01. What do we need to know to make it better?

CDPHE

- Are we addressing the right issues in this draft?
- Have we failed to cover some?
- We have to examine the feasibility of cleanup to protect an unrestricted suburban resident scenario.
- If there are errors in the draft, we need to identify where they are, what they are, and why they are wrong.

EPA

- Our needs are covered above - nothing to add.

David Abelson and Ken Korkia presented a list of questions and issues regarding the RSAL Regulatory Analysis. They identified the following questions and issues:

1) ARARs:

- What is the distinction between applicable, relevant and appropriate?
- Is there a hierarchy among these three concepts, i.e., is applicable something you **must** consider, whereas relevant and appropriate are things you have **discretion** to consider?

- **Scenario Development:** ***The NRC rule clearly states a preference to cleaning up sites to a level that allows for unrestricted use. The rule provides that the agency must clean up to 25 mRem with institutional controls if cleanp to unrestricted use is not feasible.***

- Do the RFCA parties agree with this interpretation of the NRC rule?
- Why do the agencies appear to reject this precept by not endorsing the third option outlined in EPA's regulatory analysis?
- How do the agencies justify selectively not considering this as part of the NRC rules?
- Is there an interpretation of ARARs that justifies this decision?

3) Risk vs Dose:

1. What methodology will be used to determine which approach is best?
- If a risk approach is used, how will decisions be made to select a value within the 10^{-4} to 10^{-6} risk range?
- Why is EPA Region VIII considering the 25 mRem number, when EPA as a whole appears to disagree with the number?

4) ALARA:

- How will ALARA analysis be used?
- What is NRC's interpretation of ALARA?
- What does CERCLA have to say about ALARA?
- What is DOE and the regulators' interpretation of ALARA?
- Is ALARA analysis something discretionary, and if so, how do the agencies justify such an interpretation through the ARARs?
- How will a cost/benefit analysis be conducted under ALARA?

- What will be the collective group that receives the benefit in the cost/benefit calculation?
- If an ALARA analysis is completed and the numbers do show an advantage to further cleanup under ALARA, what is the next step?
- If further cleanup is not enforceable under the regulations, will it happen if it is justified by the ALARA analysis?

During the following discussion, members of the Focus Group identified the following additional issues and questions that should be addressed as part of the RSAL regulatory framework:

- Should NRC approach be applied to non-radiological contaminants?
- Specific interpretation of NRC rule for RFETS
- How to choose point in risk range
- What is dose level for unrestricted use?
- CERCLA interpretation of the risk range
- CERCLA language regarding cleanup
- NRC rule - for how long does 100 mRem limit apply?
- What are the provisions for revisiting institutional controls?
- Enforcement of institutional controls
- 10 CFR834 - anything useful?
- Do you apply ARAR in whole or select portions?
- EPA: Is there a difference between the terms: reasonably maximum exposed individual in CERCLA and average member of a critical group in NRC rule?

The Focus Group then discussed the regulatory framework for RSALS.

A member of the focus group asked if the analysis would start with Option 3 (25 mRem to unanticipated future user), then move toward Option 4 (15 mRem to anticipated future user). EPA answered that the NRC rule would drive toward considering Option 3 first because of its preference for unrestricted land use. Option 4 would come into play if Option 3 were unfeasible or as part of ALARA.

It was asked how to access rules 1549 and 4006. These rules are available via Internet and will be posted on the RFCA web site.

One member recommended that a target range in the middle of the CERCLA risk range be selected to avoid automatically slipping to the bottom of the allowed risk range.

A member of the Focus Group asked what the dose level would be for unrestricted use under the NRC rule. The answer was: 25 mRem plus ALARA.

A member of the group suggested that time be added to the Focus Group schedule for review of the final approach when it is developed. Reed mentioned that there are two open dates that could be used for this purpose.

A member of the Focus Group asked if the NRC rule was just focused on nuclear reactors. EPA answered that the rule was intended to apply more broadly, for instance to uranium mills.

A member asked why the NRC rule was relevant and appropriate, but not applicable. It was answered that the rule had been adopted by the State Board of Health in 1999 for application to sites that the State regulates under delegation of NRC rules. Since the NRC does not regulate Rocky Flats, the NRC rule is not applicable to the site. It is, however, relevant and appropriate.

Reed asked that the RFCA parties answer the questions brought up in this discussion and those presented by Ken Korkia and David Abelson in the next RFCA meeting packet. They agreed to answer those questions that were possible to address in the time allowed.

HOW WILL THE WATER DISCUSSION PROCEED

Steve Gunderson stated that, while the Focus Group discussion on surface water protection had been set aside for a time, much work on this issue would be continuing. Examples of ongoing efforts in the next few months include the site water balance and land figuration studies. Information produced in these and other water-related studies will be issued in Focus Group packets as it becomes available. The Focus Group will decide when it should commence surface water discussions again.

GOALS CHECK

Reed checked the goals for the RSAL discussion that the RFCA agencies presented to the Focus Group. He asked the group if the process needs to be different? The group indicated that the process was working appropriately.

John Corsi told the Focus Group about a soil sampling study workshop which will be held December 12, 2000, 8:00-12:00, in Building 060 at the RFETS. It will explain statistics and sampling data, and will be an education process.

NEXT MEETING

Our next meeting will be tentatively scheduled for the B060 at RFETS, as these meeting rooms are not available, November 29, 2000, 4:30 - 6:30 p.m. Reed asked Carol if the City of Arvada would be interested in hosting the meeting. Carol indicated that she would determine if facilities would be made available.

ADJOURNMENT

The meeting was adjourned at 6:35 p.m.

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Appendix A
Participants List

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Appendix B
Draft RSAL Public Process Proposed Schedule

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Appendix C
Mary Harlow: Proposed RFCA Peer Review Process

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Appendix D
Tim Rehder: Regulatory Analysis Framework